

REMARKS

Claims 1-48 are pending in the Application. Claims 1-48 have been rejected.

35 U.S.C. 102 Rejection

Claims 1-5, 9-29 and 33-48 are rejected under 35 U.S.C. § 102 (e) as being anticipated by Kumaki et al. (United States Patent 6,473,411). According to the Office Action for claim 1:

.... Kumaki et al. discloses a method of transmitting data (transferring datagram) to a wireless mobile device (abstract), said method comprising: determining at least one of speed, location, or direction information for a mobile device (abstract), using said at least one of speed, location or direction information as a parameter to control a data rate (col. 17, lines 4-23, and col. 54 lines 42-50) for signal transmission from one or more base stations of a wireless system servicing said mobile device (abstract, and fig. 15).

Applicants respectfully disagree with the Office Action's characterization of Kumaki et al. and traverse the rejection of claim 1. In the abstract of Kumaki et al. a mobile supporting router device for realizing handoff control is described. The language in the Abstract is somewhat confusing, but the abstract seems to discuss various components of a system including interfaces between such components. Part of the system being described appear to be Mobile Supporting Routers (220, 221) or MSRs. The MSRs 220 and 221 have a first interface to radio base stations 202, 203, 210 and 211. A second interface also exists which is connected to a wireline network. The

system further comprises an information exchange unit for exchanging routing protocol information at a network level via the second interface, a memory unit for storing the routing protocol information exchanged by the information exchange unit, a transfer unit for transferring datagram (i.e., data) through the first interface in accordance with the routing protocol information stored in the memory unit, a motion detection unit for detecting motion by a mobile unit between the various radio base stations and an information updating unit for updating the stored routing information when motion of the mobile terminal is detected by the moving detection unit. There is no mention of transmitting data to a wireless mobile device by determining at least one of speed, location and direction information for the mobile device and using said at least one of speed, location or direction information as a parameter to control a data rate for signal transmissions from one or more base stations of a wireless terminal. In sum, the router device of the present invention comprises the two interfaces and the various units (information exchange unit, transfer unit, moving detection unit and information updating unit) mentioned above.

In column 17, lines 4-23, which is cited by the Examiner, Kumaki et al. discusses Radio System Configuration Management and Radio System Charge Management which are two of five management items added as the radio characteristic Management Information Base (MIB) of M1/M2/M3 interfaces for managing ATM routers, a private ATM switch and an IP private network management system and mobile communication network management. Radio System Configuration Management carries out various types of setting and changing of system parameters for carrying out radio management control such as number of radio channels, sector selection, ..., and antenna switching control. Radio System Charge Management monitors the connection set up time or the IP address allocation time and the IP datagram transfer amount in order to carry out the time and the amount charged [charging] based on the monitored amount. The cited text further describes the reconfiguration of a radio system (of a base station) when there is a shortage of radio channels at that base station compared to other base stations being managed. Neither of the management systems disclose the determination of at least one of speed, location or direction information for a mobile device and the using of such

information to control a data rate for signal transmission from one or more base stations servicing said mobile device. In Kumaki et al., there is no mention of controlling a data rate of a base station; there is no mention of determining speed or location or direction information of a mobile. Applicant's invention as recited by independent claim 1 is not disclosed, suggested or even implied by the text cited by the Office Action.

The Office Action also cites column 54, lines 42-50 as disclosing applicant's invention as recited by claim 1. The text cited by the Office Action describes a method by which transmission of packets is paused (i.e., packet is queued in a buffer) during handoff so as to influence the operation of the TCP (Transmission Control Protocol). In particular, when a packet is in a pause state, a TCP window is reduced so as to lower the transfer rate at the transmitting side. The reduction of the transfer rate is not done as a result of using a determined one of speed, location or direction of the mobile. There is no mention of using speed, or location or direction to "control" the data rate. Moreover, the motivation for reducing the data rate by the method described above is to protect the data from being transmitted by a radio section of poor quality (see col. 54, lines 22-33) and therefore by influencing the TCP, the transmission of a packet to be transmitted is delayed or paused while the transmission data rate is reduced; this is not a method to control the rate of transmission based on one of speed, location or direction of the mobile since none of these parameters are disclosed in the 'pause state' method described above.

35 U.S.C. 103 Rejection

Claims 6-8 and 30-32 are rejected under 35 U.S.C. 103 as being patentable over Kumaki et al. in view of Kanterakis (6,324,207). According to the Office Action, "Kanterakis et al. teaches the transmitting data require signal power greater than said required signal power (col. 20, line 50 thru col. 21, line 5). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to modify Kumaki's system with the teaching of Kanterakis of signal power greater than required signal power in order to keep the transmission data rate constantly high to make [the] customer happy." Kanterakis deals with a handoff technique that allows the handing off

of a remote station from a source-base station to a target base station without the loss of data. The text cited by the Office Action describes a handoff which is initiated when a first signal quality falls below a predetermined threshold level and a second signal quality. The cited text does not disclose the use of a determined one of speed, location or direction of a mobile to control a data rate for signal transmission to one or more base stations or from one or more base stations of a wireless system. Neither Kanterakis nor Kumaki nor their combination disclose the invention as recited in independent claims 1 and 25. In view of the above discussion, independent claims 1 and 25 and their corresponding dependent claims should be allowed.

Request for Reconsideration pursuant to 37 CFR 1.111

Having responded to each and every ground for objection and rejection in the Office Action mailed on September 25, 2003, applicants request reconsideration in the instant application pursuant to 37 CFR 1.111 and requests that the Examiner allow claims 1-48 and pass the application to issue. If there is any point requiring further attention prior to allowance, the Examiner is asked to contact applicants' counsel who can be reached at the telephone number listed below.

Respectfully,

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